I would like to implement 3D volume rendering for ultrasound data, and I found a useful reference at :
https://developer.nvidia.com/gpugems/gpugems/part-vi-beyond-triangles/chapter-40-applying-real-time-shading-3d-ultrasound

The source code was written base on OpenGL + Cg, and is also available at :
https://http.download.nvidia.com/developer/GPU_Gems/CD_Image/GPU_Gems_code.zip

Among the codes, I focused on the project "VolumeRenderPyramidUS" :
\GPU Gems
code\Beyond_Triangles\Ultrasound\VolumeRenderPyramidUS\VolumeRenderPyramidUS.cpp

and the correct output should be like this (face of a fetus):

Firstly, I tried to run the code on my notebook(with GPU : Nvidia GeForce GTX 1650 Max-Q) but got error in "cgCreateProgramFromFile"

```
vProfile = cgGLGetLatestProfile(CG_GL_VERTEX);
cgGLSetOptimalOptions(vProfile);

vProgram = cgCreateProgramFromFile(Context, CG_SOURCE, "VolumeRenderPyramidUSV.cg", vProfile, "VertexProgram", 0);
CheckCgError();
```

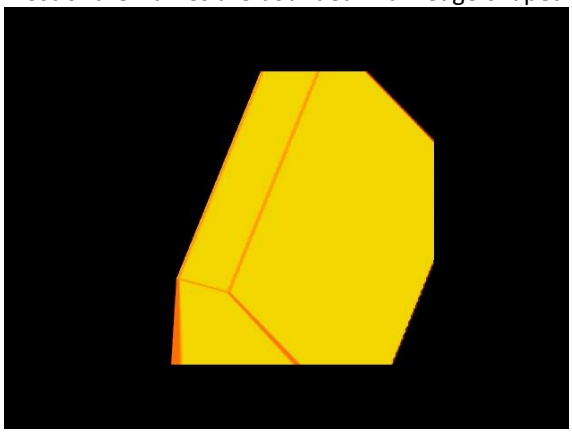
vProfile CG_PROFILE_ARBVP1 (6150)

≤10ms elapsed

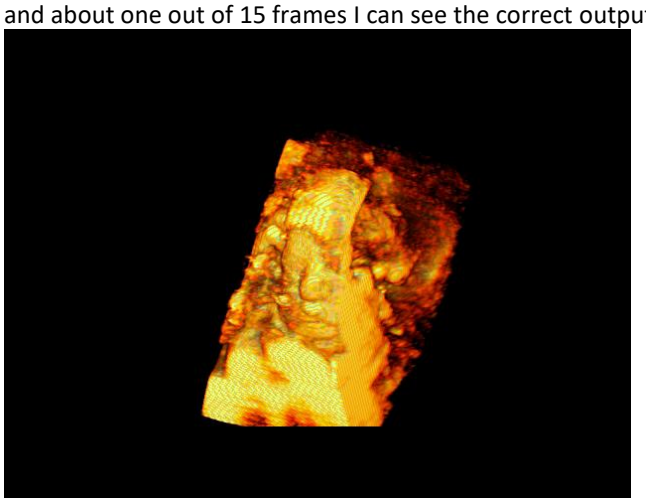
by referring to Cg user manual, "Appendix B Language Profiles" :
http://developer.download.nvidia.com/cg/Cg_3.0/CgUsersManual.pdf
I believed this is a hardware/driver compatibility issue, then I tried all different profiles(ARBVP1,VP40,VP30,VP20...) but without luck

I then tried to run the code on another desktop(with GPU : Nvidia RTX A4000, for workstation), this time code was successfully compiled, though I got the output as below :

most of the frames are bounded in a wedge-shaped box :



and about one out of 15 frames I can see the correct output



Since I didn't modify the code, the problem should reside in driver or hardware, but I have no idea on how to proceed further, really appreciated for any suggestion and help !